IN THE ABSTRACT:

Please amend the Abstract as follows:

Enhanced light absorption of solar cells and photodet ctors by diffraction is described. Triangular, rectangular, and blazed subwavelength periodic structures are shown to improve performance of solar cells. Surface reflection can be tailored for either broadband, or narrow-band spectral absorption. Enhanced absorption is achieved by efficient optical coupling into obliquely propagating transmitted diffraction orders. Subwavelength one-dimensional structures are designed for polarization-dependent, wavelength-selective absorption in solar cells and photodetectors, while two-dimensional structures are designed for polarization-independent, wavelength-selective absorption therein. Suitable one and two-dimensional subwavelength periodic structures can also be designed for broadband spectral absorption in solar cells and photodetectors. If reactive ion etching (RIE) processes are used to form the grating, RIE-induced surface damage in subwavelength structures can be repaired by forming junctions using ion implantation methods. RIE-induced surface damage can also be removed by post RIE wet-chemical etching treatments.

IN THE CLAIMS:

Please amend claims 1, 3, 7, 9, 10, 12, 13, 15, 17, 18, and 20 as follows:

1(Amended). A method for increasing absorption of light radiation [in] incident on a surface of a photo responsive device which comprises the step of forming a grating on the surface of said photo responsive device upon which the light is incident such that higher grating orders are generated within said photo responsive device and [the] a majority of the incident light entering said photo responsive device propagates obliquely to the surface upon which the light is incident, thereby increasing light absorption by said photo responsive device close to the surface upon which light is incident.

3(Amended). The method as described in claim 2, wherein [the] said solar cell [material] comprises silicon.